GE Healthcare

Technical Publications

Direction 5350561-1EN

The Hybrid DSV NM_CT 570c
Conformance Statement for DICOM V3.0

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WARNING

User provided programs or protocols are NOT validated nor warranted by ***GE Healthcare***

The use of data obtained using such user provided programs or protocols is the sole responsibility of the party using such programs or protocols.

Users exchanging files and diskettes should beware of the risk of software viruses.

LIST OF REVISIONS

REV	DATE	DESCRIPTION	PAGES	APPR.
1	Jun. 2009	First Release.	All	Marina Mesh

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SECTION **PAGE**

SECTION 1: INTRODUCTION

1.1 OVERVIEW

This DICOM Conformance Statement is divided into Sections and referenced documents as described below:

Section 1- Introduction, which describes the overall structure, intent, and references for this Conformance Statement.

Section 2 - Network Conformance Statement, is the DICOM Conformance Statement related to this product. Conformance Statements defines the subset of options selected from those offered by the DICOM standard.

Reference A - DOC0374470 Discovery NM 530c DICOM Conformance Statement

Reference B - 5116427-100 LightSpeed* DICOM Conformance Statement

1.2 OVERALL DICOM CONFORMANCE STATEMENT DOCUMENT STRUCTURE

The documentation structure of the GE Healthcare Conformance Statements and their relationship with the DICOM Conformance Statements is shown in Illustration 1-1.

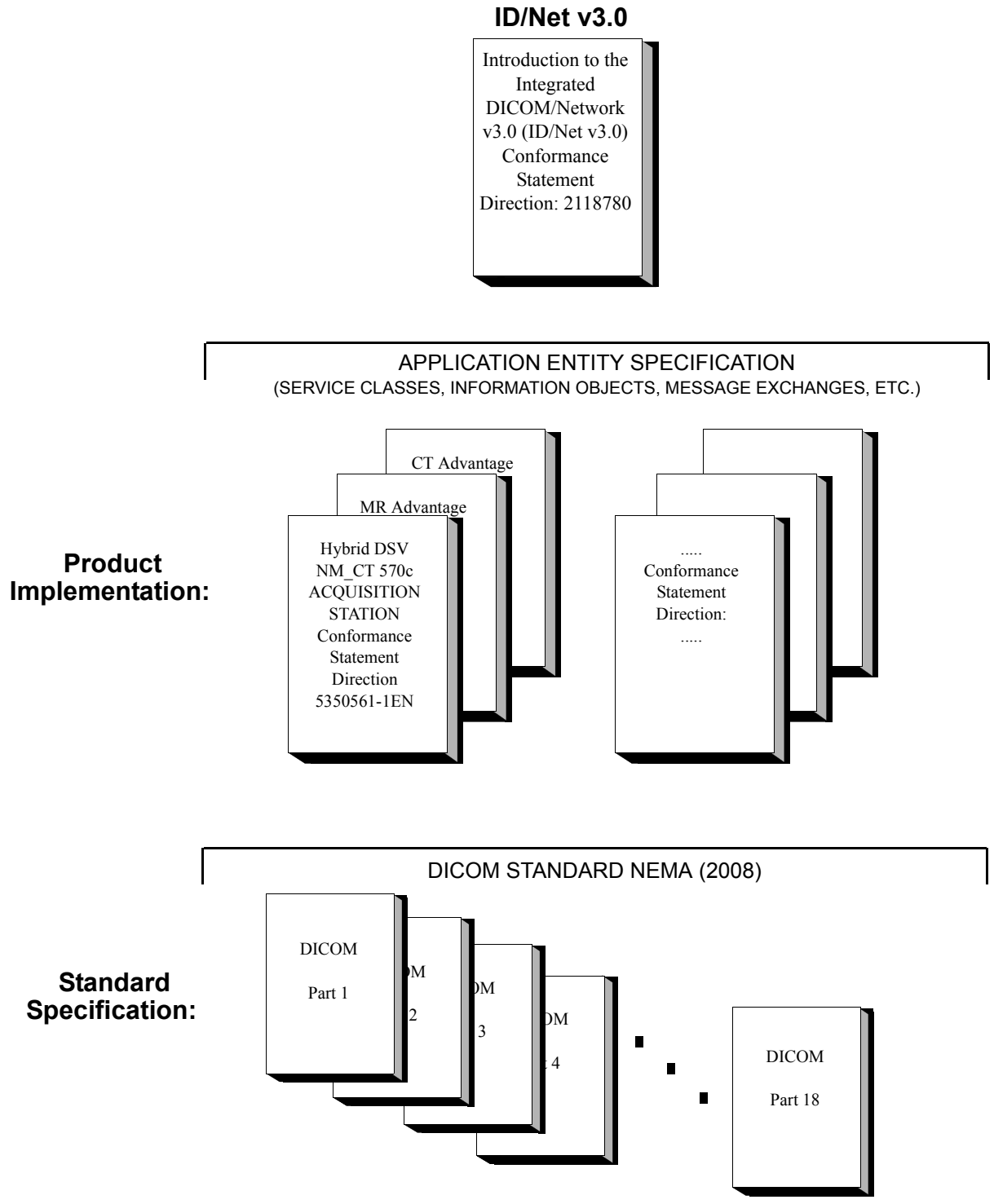

Illustration 1-1. Documentation Structure

This document specifies the DICOM implementation supported by Hybrid DSV NM_CT 570c. It is entitled:

Hybrid DSV NM_CT 570c
Conformance Statement for DICOM V3.0
Direction 5350561-1EN

This DICOM Conformance Statement documents the DICOM Conformance Statement and Technical Specification required to interoperate with the GE Healthcare network interface. Introductory information, which is applicable to all GE healthcare Conformance Statements, is described in the document:

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement
Direction: 2118780.

This introduction familiarizes the reader with DICOM terminology and general concepts. It should be read prior to reading individual products' GE Healthcare Conformance Statements.

For the convenience of software developers, there is "collector" Direction available. By ordering the collector, the Introduction described above and all of the currently published GEMS Product Conformance Statements will be received. The collector Direction is:

DICOM Conformance Statements
Direction: 2117016

For more information regarding DICOM, copies of the Standard may be obtained via the Internet at <http://medical.nema.org>. Comments to the Standard may be addressed to:

DICOM Secretariat
NEMA
1300 North 17th Street, Suite 1847
Rosslyn, VA 22209
USA
Phone: +1-703-841-3200

1.3 INTENDED AUDIENCE

The reader of this document is concerned with software design and/or system integration issues. It is assumed that the reader of this document is familiar with the DICOM Standards and with the terminology and concepts which are used in those Standards.

If readers are unfamiliar with DICOM terminology they should first refer to the document listed below, then read the DICOM Standard itself, prior to reading this DICOM Conformance Statement document.

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0)
Conformance Statement
Direction: 2118780

1.4 SCOPE AND FIELD OF APPLICATION

It is the intent of this document, in conjunction with the Introduction to the Integrated DICOM/Network (ID/Net v3.0) Conformance Statements Direction 2118780, to provide an unambiguous specification for GE Healthcare

implementations. This specification, called a Conformance Statement, includes a DICOM Conformance Statement and is necessary to insure proper processing and interpretation of GE Healthcare medical data exchanged using DICOM.

The GE Healthcare Conformance Statements are available to the public. The reader of this conformance statement should be aware that different GE devices are capable of using different Information Object Definitions.

Hybrid DSV NM_CT 570c system is a combination of Discovery NM 530c (referred to in this document as the NM system), and a VCT LightSpeed 7.X (referred to in this document as the VCT system). The Hybrid combination is referred to as the NM/VCT system. Each of these systems supports DICOM transfers as specified within the related DICOM Conformance statements (**Reference A**. and **Reference B -** See “Overview” on page 1-1.).

There is no DICOM communication between the two systems.

The hybrid system does not create any DICOM communication beyond those carried out by each of the stand-alone systems when sold independently.

1.5 IMPORTANT REMARKS

The use of these DICOM Conformance Statements, in conjunction with the DICOM Standards, is intended to facilitate communication with GE imaging equipment. However, **by itself, it is not sufficient to ensure that inter-operation will be successful**. The **user (or user's agent)** needs to proceed with caution and address at least four issues:

- **Integration** - The integration of any device into an overall system of interconnected devices goes beyond the scope of standards (DICOM), and of this introduction and associated DICOM Conformance Statements when interoperability with non-GE equipment is desired. The responsibility to analyze the applications requirements and to design a solution that integrates GE imaging equipment with non–GE systems is the **user's** responsibility and should not be underestimated. The **user** is strongly advised to ensure that such an integration analysis is correctly performed.

- **Validation** - Testing the complete range of possible interactions between any GE device and non–GE devices, before the connection is declared operational, should not be overlooked. Therefore, the **user** should ensure that any non–GE provider accepts full responsibility for all validation required for their connection with GE devices. This includes the accuracy of the image data once it has crossed the interface between the GE imaging equipment and the non–GE device and the stability of the image data for the intended applications.

  Such a validation is required before any clinical use (diagnosis and/or treatment) is performed. It applies when images acquired on GE imaging equipment are processed/displayed on a non-GE device, as well as when images acquired on non-GE equipment is processed/displayed on a GE console or workstation.

- **Future Evolution** - GE understands that the DICOM Standard will evolve to meet the user's growing requirements. GE is actively involved in the development of the DICOM Standard. DICOM will incorporate new features and technologies and GE may follow the evolution of the Standard. The GEMS protocol is based on DICOM as specified in each DICOM Conformance Statement. Evolution of the Standard may require changes to devices which have implemented DICOM. **In addition, GE reserves the right to discontinue or make changes to the support of communications features (on its products) reflected on by these ID/Net DICOM Conformance Statements**. The **user** should ensure that any non–GE provider, which connects with GE devices, also plans for the future evolution of the DICOM Standard. Failure to do so will likely result in the loss of function and/or connectivity as the DICOM Standard changes and GE Products are enhanced to support these changes.

- **Interaction** - It is the sole responsibility of the **non–GE provider** to ensure that communication with the interfaced equipment does not cause degradation of GE imaging equipment performance and/or function.

1.6 REFERENCES

A list of references that are applicable to all GE Healthcare Conformance Statements is included in the *Introduction to the Integrated DICOM/Network (ID/Net v3.0) Conformance Statements Direction 2118780*.

1.7 DEFINITIONS

A set of definitions applicable to all GE Healthcare Conformance Statements is included in the Introduction to the *Integrated DICOM/Network (ID/Net v3.0) Conformance Statements Direction 2118780*.

1.8 SYMBOLS AND ABBREVIATIONS

A list of symbols and abbreviations that are applicable to all ID/Net v3.0 Conformance Statements is included in the *Introduction to the Integrated DICOM/Network (ID/Net v3.0) Conformance Statements Direction 2118780*.

SECTION 2: NETWORK CONFORMANCE STATEMENT

2.1 INTRODUCTION

This section of the DICOM Conformance Statement specifies the compliance to DICOM conformance requirements for the relevant **Networking** features on this product.

Hybrid DSV NM_CT 570c is a combination of Discovery NM 530c (NM system), and a VCT LightSpeed 7.X (VCT system). The Hybrid combination is referred to as the NM/VCT system. Each of these systems supports DICOM transfers as specified within the related DICOM Conformance statements (Reference A. and Reference B - See "Overview" on page 1-1.).